



State of Utah

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## Department of Administrative Services

KIMBERLY K. HOOD  
Executive Director

### Division of Facilities Construction and Management

RICH AMON  
Interim Director

## Addendum No. 2

Date: May 30, 2013

To: Architects / Engineers

From: Matthias Mueller – Program Director

Reference: Army Aviation Facility (AASF) Aircraft Maintenance Hangar  
Utah National Guard – West Jordan, Utah  
DFCM Project No. 13142480

Subject: **Addendum No. 2**

Pages	Addendum Cover Sheet	5 pages
	<u>Revised Project Schedule</u>	<u>1 page</u>
	Total Addendum	6 pages

**Note: This Addendum shall be included as part of the Contract Documents. Items in this Addendum apply to all drawings and specification sections whether referenced or not involving the portion of the work added, deleted, modified, or otherwise addressed in the Addendum. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to Disqualification.**

**2.1 SCHEDULE CHANGES:** See attached Revised Project Schedule. Changes are highlighted.

**2.2 GENERAL ITEMS:** Questions/Answers

2.2.1 QUESTION: Will you please confirm that the following are the critical State, Federal and DoD standards pertaining to design of the AASF:

- 2012 Edition of the International Building Code (IBC), to include Appendix J
- 2011 Edition of the National Electric Code (NEC)
- 2012 Edition of the International Plumbing Code (IPC)
- 2012 Edition of the International Mechanical Code (IMC)
- 2009 Edition of the International Energy Conservation Code (IECC)
- 2012 Edition of the International Fuel Gas Code (IFGC)
- West Jordan Zoning Ordinance, with updates and amendments
- Americans with Disabilities Act Accessibility Guidelines (ADAAG)
- TITLE10, Code of Federal Regulations (CFR) 435, Chapter II, Energy
- Uniform Federal Accessibility Standard (UFAS)
- NFPA 101 Life Safety Code

- NFPA 409 Aircraft Hangars
- Army National Guard DG 415-3 Aviation Facilities Design Guide (2011)
- Army National Guard DG 415-5 General Facilities Information Design Guide (2011)
- UFC 1-200-01 (2011) General Building Requirements
- UFC 3-260-01 (2008) Airfield And Heliport Planning And Design
- UFC 3-260-02 (2001) Pavement Design For Airfields
- UFC 3-260-05A Design: Marking of Army Airfield Heliport O&M Facilities
- UFC 3-301-01 (2010) Structural Engineering With Change 1
- UFC 3-310-04 (2007) Seismic Design for Buildings
- UFC 3-320-06A (2005) Concrete Floor Slabs on Grade Subjected to Heavy Loads
- UFC 3-600-01 (2013) Fire Protection Engineering for Facilities
- UFC 4-010-01 (2012) DoD Minimum Antiterrorism Standards for Buildings
- UFC 4-021-01 Mass Notification Systems
- ETL 1110-3-411 Aircraft Hangar Fire Protection Systems
- ETL 1110-3-485 Fire Protection for Helicopter Hangars
- ETL 1110-3-481(1997) Containment and Disposal of AFFF Solution
- ETL 02-15 (2002) Fire Protection Engineering Criteria – New Aircraft Facilities
- 32-1084 (1996) Air Force Handbook - Facility Requirements
- MIL HDBK 1190(1987) Facility Planning And Design Guide
- TM 5-803-4 Planning of Army Aviation Facilities
- TM 5-811-5 Army Aviation Lighting
- TM 5-823-4 Marking of Army Airfield-Heliport Operation and Maintenance Facilities

ANSWER: This facility will be designed in accordance to the State of Utah code requirements. All applicable UFCs and design guides are to be followed. Since this is on leased property, the City of West Jordan requirements must also be determined and met.

- 2.2.2 QUESTION: Are we to assume that the existing fire pump and water storage are adequate for the proposed facilities? If not, what is level of responsibility for verification of existing capacity and design of upgrades to serve the proposed facilities?

ANSWER: A fire flow analysis shall be part of the design requirements and any upgrades to the system must be determined and designed to meet the required flow and pressures.

- 2.2.3 QUESTION: Will you please confirm that the following applies to this facility: “Protect areas used for fueled aircraft with a conventional wet-pipe sprinkler system (8.0 lpm/m<sup>2</sup> over 465 square meters [0.2 gpm/ft<sup>2</sup> over 5000 square feet]) and a low-level high-expansion foam system.” (From ETL 02-15.)

ANSWER: Fire system shall be designed in accordance with NFPA requirements.

- 2.2.4. QUESTION: If the requirements of ETL 02-15 are applicable, can a dry-type, pre-action sprinkler system be substituted for the indicated wet-pipe system? If not, must the building be insulated and freeze-protected for installation of a wet-pipe system?

ANSWER: The design team is required to determine criteria for the fire suppression system.

- 2.2.5 QUESTION: DG 415-3, paragraph 2-2.3.1 indicates that “The space requires a dedicated heating/ventilation (H/V) system at 1.50 CFM/SF and a fire protection applying aqueous film-forming foam (AFFF) system.” Please confirm that this paragraph applies to this facility, and to what degree.  
ANSWER: The design team is required to determine criteria for the fire suppression system.
- 2.2.6 QUESTION: Will 400Hz power be required in the hangar? If so, please describe scope of work.  
ANSWER: No.
- 2.2.7 QUESTION: Are the fire protection and airfield paving designs subject to “center of expertise” review in addition to standard reviews? If so, how will these be accommodated by the compressed design and bid schedule?  
ANSWER: Anticipated reviewing agencies will be the UTNG, FAA, South Valley Regional Airport Authority, NGB, West Jordan City, and DFCM.
- 2.2.8 QUESTION: Is a Mass Notification System available, and will it be extended to the AASF as a component of this design?  
ANSWER: A mass notification system is not required due to being an uninhabited building.
- 2.2.9 QUESTION: Are aircraft grounding connections required? If so, please provide a description of the intended scope.  
ANSWER: Aircraft Grounding are required per applicable regulations.
- 2.2.10 QUESTION: What is the required light level inside the hangar for this phase of construction and use?  
ANSWER: Light level shall be designed per applicable requirements.
- 2.2.11 QUESTION: Is a BIM (Revit) model available for the prototype design?  
ANSWER: A BIM model for the prototype design is not available.
- 2.2.12 QUESTION: Absent a BIM model, can the design be executed in 2D in order to expedite the design process? Note: Due to the simplicity of the project, there is little benefit in the use of BIM for this design.  
ANSWER: A BIM model is optional.
- 2.2.13 QUESTION: Is the design required to include hard English and soft metric units, or can the design be executed in English units only?  
ANSWER: Yes.
- 2.2.14 QUESTION: Can the Specifications be executed in Masterspec or a similar program? Please confirm that Specs Intact is not required for this project.  
ANSWER: Yes and Specs Intact is not required.

- 2.2.15 QUESTION: What level of fire suppression system drawings are expected? Scope-of-work drawings and specifications or fully engineered systems with sized piping and equipment? Standard practice is for fully engineered drawings to be a deferred submittal prepared by the Contractor's fire protection sub.  
ANSWER: Fire system can be designed as a deferred submittal per DFCM requirements.
- 2.2.16 QUESTION: Is the design required to include trench drains and other facilities for containment of AFFF? (This is assumed to be the case if an AFFF system is confirmed as a requirement.)  
ANSWER: Fire system shall be designed in accordance with NFPA requirements.
- 2.2.17 QUESTION: Is provision of natural light, via windows or skylights, a desired feature? None are shown on the prototype design.  
ANSWER: Natural light is desired. The design team shall coordinate with the end user for natural lighting requirements.
- 2.2.18 QUESTION: CH2MHILL drawings FP-141, FP-142 and FP-143 indicate a dry-pipe fire sprinkler system to protect the unheated aircraft storage area. Due to the delay in operation of a dry-pipe fire sprinkler system (no water discharged until all air is evacuated), a pre-action type fire sprinkler system may be more appropriate to protect this type of facility with high value assets stored inside. Indeed, a pre-action fire sprinkler system is the recommended method to provide fire sprinkler protection of a cold aircraft hangar in accordance with ETL 02-15 paragraph A1.3.2. and NFPA 409 section 8 6.2.4.1. Can the dry-pipe system indicated on the drawings be replaced with a pre-action type fire sprinkler system?  
ANSWER: The documents as provided are for information and use when applicable. The facility is to be site adapted in accordance with all applicable codes and end user requirements. The design team is required to design the most efficient system.
- 2.2.19 QUESTION: CH2MHILL drawings FP-141, FP-142 and FP-143 do not clearly indicate the type of supplementary, low-level fire protection system required to protect against a fuel spill. It is assumed that aircraft stored in the hangar will be fueled and such low level fire protection system would be required by ETL 02-15 A1.3.1.1.2 and NFPA 409 section 6.1.1(2 or 3). Is a supplementary, low level fire protection system required? Will a high expansion foam fire suppression system (as currently installed in AASF south hangar) be allowed?  
ANSWER: The documents as provided are for information and use when applicable. The facility is to be site adapted in accordance with all applicable codes and end user requirements. The design team is required to design the most efficient system. Design shall be per airframe requirements.
- 2.2.20 QUESTION: In order to meet the design schedule, can the submittal requirements be changed to have only two submittals: Schematic Design and Construction Documents?  
ANSWER: Submittal requirements will be per NGB Pam 415-5.

- 2.2.21 QUESTION: In order to meet the design schedule, is DFCM willing to allow the A/E to proceed to the next phase of design during the Review Period, rather than having to wait for written approval to proceed to the next phase? Contract says "2. Authorization to Proceed Required in Writing from DFCM. The A/E may proceed on and be paid for Design Development work only after a written authorization to proceed to the Design Development Phase is provided by the DFCM Representative."  
ANSWER: Any effort done while waiting for the review will be at the risk of the A/E team.
- 2.2.22 QUESTION: UFC 4-010-01 DoD Anti-Terrorism Standards is specifically for occupied buildings. During the pre-bid, there was reference to some criteria for stand-off distances to protect the assets. Please provide the reference.  
ANSWER: ATFP requirements do not apply since it is an uninhabited building. City requirements for setback may be required. The design team shall determine required setbacks.
- 2.2.23 QUESTION: Has the pre manufactured metal building firm already been hired for the core and member sizing design for the new hanger? if not when is that expected?  
ANSWER: No. Since this is a design-bid-build delivery method, the steel building will be a deferred submittal once the contractor is selected.
- 2.2.24 QUESTION: Is there a preference for this new building exterior to require CMU wainscot or is steel siding with extended foundation? (big difference in cost)  
ANSWER: The design team shall coordinate with the end users to determine the exterior look of the building. Budget will dictate.
- 2.2.25 QUESTION: The existing hangar on campus has an overhead bridge crane that appears to have mobility throughout the building. Will the new hangar need to have structural support for the same mobility or will the future crane be stationed in one bay with limited mobility?  
ANSWER: The design shall incorporate a future bridge crane for the length of the building.
- 2.2.26 QUESTION: What is the preference for the bay doors? 1. multipanel door like the existing hangar we walked thru, or a 2. fabric door, or 3. accordion folding door?  
ANSWER: The preferred hangar doors shall be sliding partition doors.



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

**Division of Facilities Construction and Management**

**DFCM**

**PROJECT SCHEDULE – REVISED  
PER ADDENDUM NO. 2 DATED MAY 30, 2013**

<b>PROJECT NAME: ARMY AVIATION FACILITY (AASF) AIRCRAFT MAINTENANCE HANGAR UTAH NATIONAL GUARD – WEST JORDAN, UTAH</b>				
<b>DFCM PROJECT #: 13142480</b>		<b>UTAH NATIONAL GUARD PROJECT #: 490803</b>		
<b>Event</b>	<b>Day</b>	<b>Date</b>	<b>Time</b>	<b>Place</b>
Solicitation for A/E Services Available	Tuesday	May 7, 2013	10:00 AM	DFCM web site*
<b>Mandatory</b> Pre-submittal Meeting	Friday	May 17, 2013	9:00 AM	Utah Army Natl Guard Facilities Office 7602 Airport Road West Jordan Municipal Airport, West Jordan, Utah
Last Day to Submit Questions	Wednesday	May 22, 2013	12:00 NOON	Matthias Mueller - DFCM E- mail: Fax: 801-538-3267
<b>Addendum Deadline (exception for bid delays)</b>	<b>Thursday</b>	<b>May 30, 2013</b>	<b>3:00 PM</b>	<b>DFCM web site *</b>
<b>Management Plans, References, Statements of Qualifications, and Termination / Debarment Certifications Due</b>	<b>Monday</b>	<b>June 3, 2013</b>	<b>12:00 NOON</b>	<b>DFCM 4110 State Office Bldg SLC, UT 84114</b>
<b>Short Listing by Selection Committee, if applicable.</b>	<b>Thursday</b>	<b>June 6, 2013</b>	<b>4:00 PM</b>	<b>DFCM web site *</b>
<b>Interviews</b>	<b>Monday</b>	<b>June 10, 2013</b>	<b>TBA</b>	<b>To Be Announced</b>
<b>Announcement</b>	<b>Tuesday</b>	<b>June 11, 2013</b>	<b>4:00 PM</b>	<b>DFCM web site *</b>

\* DFCM's web site address is <http://dfcm.utah.gov>.